

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

**FILED**  
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CLERK'S OFFICE  
U.S. DISTRICT COURT  
EASTERN MICHIGAN

TK HOLDINGS, INC.,

Plaintiff,

-vs-

Case No. 08-14266  
HON. AVERN COHN

CTS CORPORATION and CTS  
AUTOMOTIVE PRODUCTS,

**CTS CASE**

Defendants.

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**DECISION AND ORDER ADOPTING REPORTS AND RECOMMENDATIONS  
OF THE SPECIAL MASTER ON MOTIONS FOR SUMMARY JUDGMENT  
RELATING TO INVALIDITY AND NON-INFRINGEMENT**

I. Introduction

A. In General

This is a patent case. It began with a complaint for declaratory judgment (Doc. 1) filed by TK Holdings, Inc. (TK) against CTS Corporation and CTS Automotive Products (collectively, CTS), asking for a declaration that U.S. Patent No. 6,431,013 (the '013 Patent), entitled "Strain Gage Having an Attached Unstrained Area for the Mounting of Signal Conditioning Components," U.S. Patent No. 6,467,361 (the '361 Patent), entitled "Strain Gage Sensor Having an Unstrained Area," and U.S. Patent No. 6,161,891 (the '891 Patent), entitled "Vehicle Seat Weight Sensor," were not infringed by TK. The complaint also asserted that these patents were invalid. In an amended complaint (Doc. 7), TK added a claim that CTS infringed its U.S. Patent No. 7,100,944 (the '944 Patent), entitled "Method of Attaching a Seatbelt to a Seatbelt Tension

Sensor.”

CTS answered, asserting that the ‘013, the ‘361 and the ‘891 Patents were valid and infringed by TK. In addition, CTS denied that it infringed the ‘944 Patent (Doc. 15).

In a second amended complaint (Doc. 106), TK asked for a declaration of unenforceability and invalidity of the ‘013, the ‘361 and the ‘891 Patents.

Shortly after issues joined, the Court divided the case informally into a TK case and a CTS case. Eventually, as the two cases progressed, TK dismissed its challenge of infringement of the ‘944 Patent (Doc. 81), and CTS dismissed its challenge of infringement of the ‘891 Patent (Doc. 140). These dismissals came after the ‘944 and ‘891 patents had gone through a *Markman* proceeding. See Doc. 69 as to the ‘944 patent and Doc. 136 as to the ‘891 Patent. This left for decision issues relating to only the ‘013 and ‘361 patents.

#### B. The Pending Motions

Pending before the Court are the following motions:

1. CTS’s motion for summary judgment on the grounds that the ‘013 Patent and the ‘361 Patent are not invalid<sup>1</sup> (Doc. 141) due to
  - lack of enablement under 35 U.S.C. §112, ¶1
  - failure of written description under 35 U.S.C. §112, ¶1
2. TK’s cross motion for summary judgment on the grounds that the ‘013

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<sup>1</sup>It is not clear why CTS filed for a negative declaration with regard to validity since the burden of establishing invalidity falls on the challenger, in this case, TK. See, *Avia Group Intern., Inc. v. L.A. Gear California, Inc.*, 853 F.2d 1557, 1562 (Fed. Cir. 1988) (“ . . . [the owner] had no obligation to introduce any evidence initially on validity. Such evidence was required only in response to the [challenger’s] evidence.”)

Patent and the '361 Patent are invalid, see Doc. 213,<sup>2</sup> due to

- the asserted patents fail to meet the written description requirement of 35 U.S.C. §112, ¶1
3. TK's motion for summary judgment of non-infringement (Doc. 148) on the grounds that
- the accused product does not include a center section that is "adapted to flex in response to the applied weight," as required by each asserted paradigm claim.
  - the accused product does not include at least one resistor mounted on a "center section," as required by each asserted paradigm claim.
  - the accused product does not include a wing section that is "adapted to be out of the path of the weight and not to flex," as required by paradigm claim 1 of the '013 patent.
  - the accused product does not include a wing section that is "adapted to be out of a strain path" or an "unstrained resistor," as required by paradigm claim 5 of the '361 patent.

As will be explained, the motions were referred to a Special Master for reports and recommendations. See Doc.155. This decision adopts the reports and recommendations of the Special Master, Docs. 224, 229, and disposes of the motions accordingly.<sup>3</sup>

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<sup>2</sup>Doc. 213 is the Court's order indicating that TK, its papers responding to CTS's motion on written description, effectively filed a cross motion for summary judgment on invalidity relating to written description. The docket does not reflect a free-standing motion for summary judgment by TK on these grounds, but it does reflect a motion by TK for leave to file a summary judgment motion on written description. (Doc. 211). The case has proceeded before the Court and Special Master consistent with cross motions for summary judgment on written description.

<sup>3</sup>Also pending before the Court is TK's motion for summary judgment of invalidity due to anticipation (Doc. 144) and TK's motion for summary judgment of invalidity for failing to meet definiteness requirements under 35 U.S.C. §112, ¶ 2. (Doc. 145). These motions were also referred to the Special Master. The parties, however, agreed

## II. The Patents-in-Suit

### A. The '031 Patent

The paradigm claim of the '013 Patent, Claim 1, reads:

1. A weight sensor for measuring a weight applied to the sensor, comprising:
  - a) a substrate including:
    - 1) a center section that is adapted to flex in response to the applied weight;
    - 2) at least one step section attached to the center section, the center section located adjacent the step section, the step section adapted to concentrate the weight applied thereon onto to the center section; and
    - 3) at least one outer section attached to the step section;
  - b) at least one strain gage resistor, mounted on the center section of the substrate, for generating an electrical signal in response to the substrate being stressed; and
  - c) at least one wing section attached to the center section, the wing section adapted to be out of the path of the weight and not to flex, the wing section containing signal conditioning electronics operative to condition the electrical signal.

### B. The '361 Patent

The paradigm claim of the '361 Patent, Claim 1, reads:

1. A strain gage for measuring a force applied to the strain gage,

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to defer consideration of these motions by the Special Master pending resolution of the instant validity and infringement motions. Additionally, TK filed motions to accept the report and recommendations of the Special Master relating to invalidity (Doc. 235) and non-infringement (Doc. 226). In light of the Court's decision adopting the reports and recommendations, all of these motions are MOOT. Finally, along the way, each party has withdrawn portions of some of the motions. See Doc. 160 (as to TK) and Doc. 178 (as to CTS).

comprising:

- a) a substrate including:
  - 1) a center section that is adapted to flex in response to the applied weight;
  - 2) at least one step section attached to the center section, the center section located adjacent the step section, the step section adapted to concentrate the weight applied thereon onto the center section; and
  - 3) at least one outer section attached to the step section;
- b) at least one strained resistor, mounted on the center section of the substrate, for generating an electrical signal in response to the substrate being stressed;
- c) at least one wing section attached to the center section, the wing section adapted to be out of a strain path; and
- d) at least one unstrained resistor mounted on the wing section,

together with dependent Claim 5, which reads:

- 1. The strain gage according to Claim 1, wherein at least one terminal is mounted on the wing section.

### III. Background

In general, the patents-in-suit and the accused device, Takada 565 System Device (a photograph of which is attached as Exhibit A), cover a weight sensor for detecting the presence of an occupant in an automobile seat which provides an electric signal to control activation of an air bag. The air bag deployment control system is used to prevent injury to infants and small children resulting from deployment of the air bag with excessive force. The particulars of the asserted claims are explained in the Memorandum and Order on Claim Construction relating to the '013 and '361 Patents

(Doc. 71). As to claim construction, it should be noted that the Special Master (later described), disagreed with the Court's claim construction in part. See Docs. 201, Doc. 202 and Doc. 208.

TK and CTS are competitors in the manufacture and sale of weight sensors to the automotive industry. TK says the patents-in-suit are invalid for a variety of reasons and that the accused device does not infringe either patent. CTS says that the patents are valid and that TK, in the manufacture and sale of the accused device, infringes the patents-in-suit.

#### IV. The Special Master

##### A. Standard of Review

Under Fed.R.Civ.P. 53(f)(2), the Court conducts a *de novo* review of those portions of the Special Master's Report to which objections have been filed, unless the parties have agreed that the Special Master's findings shall be final or that review shall be for clear error. Fed. R .Civ. P. 53(f) (3). See also *Hochstein v. Microsoft Corp.*, 730 F.Supp.2d 714, 717 (E.D. Mich. 2010). The Court may " 'accept, reject, or modify, in whole or in part the finding or recommendations' " of the Special Master. *Chrimar Systems, Inc. v. Foundry Networks, LLC*, No. 06–13936, 2010 WL 3431569, at \* 2 (E.D. Mich. Aug.30, 2010) (quoting 28 U.S.C. § 636(b)(1)).

##### B. The Papers

The papers relating to the invalidity and infringement motions span multiple docket entries. In addition to the motions, there are memorandums of law, statements of material facts and responses thereto, joint statements of material facts, declarations with exhibits, other exhibits, response briefs, reply briefs, and a glossary of technical

terms. In all, they consist of approximately thirty-five filings. Following the filing of the special master's interim and final reports and recommendations, the parties filed a multitude of papers both objecting to, and supporting, the recommendations. They consist of approximately twelve filings. Suffice it to say, the motions were thoroughly briefed before the Court and the Special Master.

### C. The Reports and Recommendations

The Special Master filed a separate Report and Recommendation on the validity issues (Doc. 229), and on the infringement issues (Doc. 224). The Special Master then issued a Supplement to his Report and Recommendation on the infringement issues (Doc. 231), in which he clarified the comments of the parties to a draft of the Report and Recommendation on the infringement issues (Doc. 218), and included which of the separately stated facts in the Joint Statements of Facts (Doc. 192) related to the draft.

#### 1. Validity

With regard to the issues relating to validity, the Special Master recommended (Doc. 229):

- TK's motion for summary judgment that the asserted patents are invalid under 35 U.S.C. §112, ¶1 for failing to provide a written description of 'step section' should be granted.
- CTS's motion for summary judgment that the asserted patents are not invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed 'step section' should be denied.
- CTS's motion for summary judgment that the asserted patents are not invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed 'wing section' and 'unstrained resistor' should be denied.
- The Court should *sua sponte* grant summary judgment in favor of TK that the asserted patents are invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed 'wing section' and 'unstrained resistor.'

## 2. Infringement

With regard to the issues relating to infringement, the Special Master recommended (Doc. 224):

- TK's motion for summary judgment of noninfringement, based upon its contention that the mid-portion of its substrate is not capable of flexing, should be denied.
- TK's motion for summary judgment of noninfringement, based upon its contention that its substrate does not have at least one strain gage resistor mounted on the center section, should be denied.
- TK's motion for summary judgment of noninfringement, based upon its contention that there is no infringement under CTS's alternative theory (Analysis 2), should be granted.
- TK's motion for summary judgment of noninfringement, based upon its contentions that its accused wing section does flex, and that its wing section-mounted resistor is subject to forces derived from the applied weight, should be granted.

## V. Decision

The Court heard oral argument on the two Reports and Recommendations. The Court also heard from the parties on certain questions put to the parties by the Court. See Docs. 243, 244, 245, and 255. At the conclusion of the oral argument, the Court directed the Special Master to

. . . file a supplemental report and recommendation as to whether or not the filings and argument by the parties following his reports and recommendations gave him cause to change, amend or modify his reports and recommendations.

(Doc. 252 at p. 2). The Special Master did so. (Doc. 253). The Special Master found no cause to change, amend or modify either of his two (2) Reports and Recommendations. Simply put, the Special Master stated that in his opinion, the '013



Patent and the '361 Patent are each invalid, and that the accused device does not infringe.

The Court has considered the objections of CTS, as well as the arguments for adoption by TK, and the answers to the Court's questions. The Court has also reviewed the Special Master's conclusions of law. The Court is satisfied that the Special Master's recommendations need no specific comment or elaboration. The Court adopts the Special Master's two Reports and Recommendations as its findings of fact and conclusions of law.<sup>4</sup>

Specific disposition of the summary judgment motions follow:

**CTS's Motion (Invalidity)**

CTS's motion for summary judgment that the asserted patents are not invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed "step section" is DENIED.

CTS's motion for summary judgment that the asserted patents are not invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed "wing section" and "unstrained resistor" is DENIED.

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<sup>4</sup>The practice of a judge adopting a report and recommendation of a special master without change is not uncommon. See Jay P. Kesan & Gwendolyn G. Ball, *A Study of the Role and Impact of Special Masters in Patent Cases* (Federal Judicial Center 2009), available on-line at the Federal Judicial Center's website, [www.fjc.gov](http://www.fjc.gov). The authors conducted a statistical analysis of special masters in patent cases. Among their conclusions is that "reports and recommendations produced by special masters are nearly always adopted by the court, usually with no modification." *Id.* at p. 12.

**TK's Motion (Invalidity)**

TK's cross motion for summary judgment that the asserted patents are invalid under 35 U.S.C. §112, ¶1 for failing to provide a written description of "step section" is GRANTED.

Summary judgment shall enter in favor of TK on the grounds that the patents are invalid under 35 U.S.C. §112, ¶1 for failing to enable the claimed "wing section" and "unstrained resistor."

**TK's Motion (Non-infringement)**

TK's motion for summary judgment of non-infringement, based upon its contention that the mid-portion of its substrate is not capable of flexing, is DENIED.

TK's motion for summary judgment of noninfringement, based upon its contention that its substrate does not have at least one strain gage resistor mounted on the center section, is DENIED.

TK's motion for summary judgment of noninfringement, based upon its contention that there is no infringement under CTS's alternative theory (Analysis 2), is GRANTED.

TK's motion for summary judgment of noninfringement, based upon its contentions that its accused wing section does flex, and that its wing section-mounted resistor is subject to forces derived from the applied weight, is GRANTED.

## VI. Comment

The record reflects a particular concern by the Court regarding the claim requirement that, “the wing section. . .not to flex” (’013 Patent), and “the wing section. . .to be out of the strain path” (’361 Patent), as well as “at least one unstrained resistor adapted to be out of a strain path” (’361 Patent). See Doc. 243.

The claim language calls for zero force. In contrast, the specification language is less restrictive allowing for very low to zero stress. The Special Master, in recommending non-infringement, said the language of the claim was unambiguous, and since there was no dispute that there was some stress, the claims do not read on the accused device, and hence there is no infringement.

CTS’s argument for allowing some *de minimus* stress contrary to zero stress was articulated in the hearing of February 13, 2014. See Doc. 254 at pp. 18-48.

Notwithstanding the earnestness of CTS’s argument, the Court is satisfied that the Special Master is correct when he says:

CTS describes this zero-flex, zero-strain, claim interpretation [as] hyper-technical and contrary to the objectives and full context of the patents’ disclosures. There are two responses. First:

The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims.

*Markman v. Westview Instruments*, 52 F.3d 967, 980 (Fed. Cir. 1995 (*en banc*)). As Judge Rich, the co-author of the 1952 Patent Act, and long-time CCPA and Federal Circuit Judge, put it: “the name of the game is the claim.”<sup>10</sup>

Second, unless the claim is invalid because it contains “an impossible limitation, such as a nonsensical method of operation,”<sup>11</sup> CTS could have avoided this perhaps rigid and harsh result:

‘To temper unsparing logic and prevent an infringer from stealing the benefit of an invention,’ a patentee

may invoke this doctrine [of equivalents] to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.'

*Graver Tank v. Linde Air Products*, 339 U.S. 605, 608 (1950) (internal citations omitted). But CTS waived that right, as discussed in the R&R (Doc. 224 at 30, fn. 9) and below in Section III-D.

<sup>10</sup> *The Extent of the Protection and Interpretation of Claims – American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499, 501 (1990).

<sup>11</sup> *EMI*, cited and quoted at R&R (Doc. 229 at 49-51).

(Doc. 253, Supplemental Report and Recommendation, at pp. 19-20).

## VII. Conclusion

For the reasons stated above, the Reports and Recommendations of the Special Master (Docs. 224, 229, 253) are ADOPTED as the findings and conclusions of the Court.

CTS's motion for summary judgment on invalidity (Doc. 141) is DENIED. TK's cross motion for summary judgment on invalidity is GRANTED. TK's motion for summary judgment of non-infringement (Doc. 148) is GRANTED. The '013 and '361 patents are invalid and the accused device, Takada 565 System Device, does not infringe either patent.

This decision disposes of all of the pending motions, see n. 3 *supra*, and closes the case.

SO ORDERED.

Dated: 5/29/2014  
Detroit, Michigan

  
AVERN COHN  
UNITED STATES DISTRICT JUDGE

EXHIBIT A

